ABSTRACT OF THE DISCLOSURE

A system for association itemset mining. The system includes a database, a storage device and an association analysis unit. Each weighted record comprises a time scale and a weighted value. All transaction records are partitioned according to the time scale, each comprising at least one item. The association analysis unit calculates multiple weighted minimum support values, generates multiple itemsets among the transaction data stored in the database, and calculates weighted frequency for each itemset. In addition, it is determined whether the weighted frequency for each itemset exceeds the weighted minimum support value to generate the resulting association itemset.